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LETTER DATED 2 JULY 1999 FROM THE SECRETARY-GENERAL ADDRESSED TO THE PRESIDENT OF THE SECURITY COUNCIL

Pursuant to paragraph 9 of Security Council resolution 1242 (1999) of 21 May 1999, I have the honour to submit a detailed list of parts and equipment necessary for the purpose described in paragraph 1 of resolution 1175 (1998).

In order to help prepare the above-mentioned list, I dispatched a group of five experts to Iraq. The experts were provided by Saybolt Nederland BV, which, under a contract with the United Nations, has been providing independent oil inspection agents since the beginning of the humanitarian programme in Iraq pursuant to resolution 986 (1995). The group visited Iraq from 6 to 12 June 1999 to review the situation on the ground and, in consultation with the Government of Iraq, to prepare the list of spare parts and equipment necessary to enable Iraq to increase the export of petroleum and petroleum products, in quantities sufficient to produce the sum established in paragraph 2 of resolution 1153 (1998). The report of the group is attached for your information (see annex).

As stated in my previous reports to the Security Council, including the most recent one submitted on 18 May 1999 (S/1999/573 and Corr.1 and 2), the oil industry of Iraq continues to be in a lamentable state. It may be recalled that the group of experts had stated then that the productivity of existing oil fields in Iraq had been seriously reduced, some irreparably, during the past two decades. They had also stated that a sharp increase in production without concurrent expenditure on spare parts and equipment would severely damage oil-containing rocks and pipeline systems, and would be against accepted principles of "good oil field husbandry".

According to the group of experts, Iraq has been continuing the practice of overproduction of crude oil from wells without sufficient well pressure maintenance. Consequently, there have been high levels of production decline from a significant number of producing wells. As reported previously (S/1998/1233), owing to the lack of water removal facilities, a significant number of wells have ceased production, in both the north and the south. According to the group of experts, approximately 20 per cent of those wells are irreparably damaged.

Nevertheless, the water injection programme in the south, assisted by treatment chemicals and the initiation of new production, has allowed for an increase in production at a level greater than the losses incurred, resulting in an overall increase, as referred to in paragraph 11 of the report of the group of experts. According to the group of experts, refinery throughput reductions have released, albeit in the short term, additional crude oil for export.

The current rise in the export volume of Iraqi crude oil of an average of approximately 300,000 barrels per day from phase IV to phase V (which includes 100,000 barrels per day owing to reduced refining throughput), should not create complacency regarding the urgent need for spare parts and equipment for the oil industry. As pointed out by the group of experts, the current incremental production rates may indeed briefly reach a plateau of 200,000 barrels per day, but they will be achieved with serious environmental consequences, as well as damage to oil wells. Furthermore, the higher production rates will begin to decline unless much-needed chemicals for drilling mud and perforating and other equipment and spare parts - some of which have been placed on hold by the Security Council Committee established by resolution 661 (1990) - are delivered to Iraq in a timely manner. The absence of a single spare part or item of equipment, as small as it may be, could be sufficient to prevent the completion of an entire water injection project or well completion programme. I welcome, therefore, the new format in the approved distribution plan for phase VI, indicating the interrelationship of the spare parts and equipment requested, which should assist in the consideration and approval of applications.

At 29 June 1999, a total of 958 applications, with a value of over $508 million, for spare parts and equipment for the Iraqi oil industry had been received by the Office of the Iraq Programme, of which 785, with a total value of $392 million, were circulated. Of the total number of applications circulated, 561, with a total value of $287 million, have been approved by the Security Council Committee and 201, with a total value of $95 million, have been placed on hold. There remain 73 applications, with a total value of $82 million, which have not yet been circulated because of insufficient information provided by the applicants.

The group of experts, in reviewing the submission of the Government of Iraq, has stated that the distribution plan for oil spare parts and equipment under phase VI aims to stabilize and, where possible, to increase crude oil production while undertaking prudent repair and maintenance; to enhance operational efficiency; and to undertake projects to improve product quality and to address environmental and safety issues.

The total value of the spare parts and equipment, as listed, exceeds the $300 million provided for under resolution 1242 (1999). As indicated in the distribution plan for phase VI, the Government of Iraq will enter into contracts for spare parts and equipment up to a value of $300 million during the initial period of phase VI and, if oil revenues generated during phase VI are likely to exceed the total of the $3,004 million required for the implementation of the approved distribution plan, the Government intends to enter into additional contracts up to the value of $300 million (S/1999/671, annex II, enclosure). Any additional amount requested for the purchase of oil spare parts and equipment would require authorization by the Council. I intend to keep under

constant review the revenues received during the current phase and address the matter within the context of the 90-day report to be submitted to the Council pursuant to paragraph 6 of resolution 1242 (1999).

As indicated by the group of experts, while the estimated value of the list of spare parts and equipment submitted by the Government of Iraq is twice the amount approved by the Council in resolution 1242 (1999), the amount indicated by the Government of Iraq is considered to be commensurate with the production levels achieved and predicted, particularly given the emphasis placed on major projects and investment in safety, control of pollution and environmental damage.

The stated crude oil production targets of the Government of Iraq are: 3 million barrels per day by December 1999; 3.2 million per day by March 2000; and 3.5 million per day by December 2000. According to the group of experts, the production targets could be met, subject to the continued arrival and distribution of spare parts, materials and equipment in a timely manner. Any technical problems encountered with the transport infrastructure and loading facilities, however, would inevitably negate the advantages of recent increases in the production and export of oil. It is essential, therefore, to resolve urgently the deficiencies in the areas of production and transportation infrastructure, power supply, intermediary storage capacity, communications and safety measures. As pointed out by the group of experts, the operations in Mina al-Bakr are not carried out in an operationally safe manner. Currently, control of transportation systems of crude oil from Iraq's southern oil fields is carried out in a manual mode and, actually, owing to the lack of intermediary storage capacity, a large percentage of crude oil is transferred almost directly from the producing fields to Mina al-Bakr. This operation involves a length of 180 kilometres of the pipeline, without efficient communications and operations control. A particular concern is the control of any situation that might be caused by an emergency shut-down of a loading procedure at Mina al-Bakr, which could result in major and disastrous oil spillage.

It would be most helpful, therefore, if the Council could request the Security Council Committee to proceed as expeditiously as possible in its consideration and approval of applications for oil spare parts and equipment submitted under phases IV and V, as well as under phase VI, and to review further all applications placed on hold. The Office of the Iraq Programme stands ready to assist the Committee in providing any additional information, as well as technical advice, that may be required.

(Signed) Kofi A. ANNAN

Annex

Report of the group of experts established pursuant to paragraph 9 of Security Council resolution 1242 (1999)

A. Terms of reference

1. In paragraph 9 of its resolution 1242 (1999) of 21 May 1999, the Security Council requested "the Secretary-General, in consultation with the Government of Iraq, to submit to the Council, by 30 June 1999, a detailed list of parts and equipment necessary for the purposes described in paragraph 1 of resolution 1175 (1999)". The terms of reference for the group of experts included: preparation of an independent report on Iraq's current oil production and transportation capacity, a forecast of the oil production capacity increase of Iraq, based on the receipt and installation of oil spare parts and equipment; a review of the list of oil spare parts and equipment submitted by the Government of Iraq under the distribution plan for phase VI; and a review of the arrangements for the monitoring of oil spare parts and equipment in Iraq.

B. Introduction

2. At the request of the Secretary-General, a group of experts visited Iraq to ascertain the current requirements for spare parts and equipment in relation to Iraq's ability to sustain current export capacity of crude oil and also to review and further assess the potential for increased exports.

3. The group of experts visited Iraq from 6 to 12 June 1999 and met with the relevant authorities, in particular the Ministry of Oil, and representatives from all the operating companies in the oil sector in order to finalize the list of oil spare parts and equipment.

C. Distribution plan for phase VI

4. The distribution plan for phase VI as it relates to oil spare parts and equipment, as provided by the Government of Iraq, aims to stabilize and, where possible, to increase crude oil production while undertaking prudent repair and maintenance; to enhance operational efficiency; to undertake projects to improve product quality; and to address environmental and safety issues.

5. The distribution plan of the Government of Iraq has four main sections.

Crude oil production

6. The stated crude oil production aims of the Government of Iraq are: 3 million barrels per day by December 1999; 3.2 million per day by March 2000; and 3.5 million per day by December 2000.

Oil refining

7. The objectives of the Government in oil refining are: to increase lubrication oil production to meet overall local demand; to improve the quality of refined products by reducing sulphur contents in gas oil and kerosene and the necessity for lead compounds in gasoline; to improve safety standards and fire-fighting capabilities; to improve environmental protection by enhanced treatment to effluent water and gas emissions; and to increase operating efficiency in general. Improved control and increased efficiency of the refining process and improved product quality (especially lubricating oil production) are required to support the increased production levels envisaged.

Gas processing

8. The repair and maintenance of degassing plants and utilities is also envisaged to increase crude oil production more efficiently and, as a result, to provide more gas to be used as fuel. Oil field production fluids are multi-phasic and over the life of the field will vary in both flow rate and composition. It is necessary to separate these phases to obtain disposable quality water and to export quality hydrocarbon phases, namely gas and oil. Three-phase separators are units that separate the gas, oil and water phases of the production fluids.

Oil product distribution

9. In the area of oil product distribution, the Government of Iraq intends to improve safety standards through the provision of new equipment; to improve environmental protection through the provision of tank cleaning and sewage disposal equipment; and to increase overall operational efficiency through the provision of better equipment, such as storage tanks and transportation. This will enhance flexibility in distributing the mineral oil products (gasoline and gas oil) to domestic users in the country.

D. Production estimates

10. The scale of production capacity from indigenous oil fields in Iraq, especially in the south, is often misinterpreted. The impact of the recent low-key start to the water injection programmes in the North and South Rumaila and Zubair fields has distorted the timing of earlier predictions of the "daily oil production versus time" graph. During previous expert missions it had not become clear that Iraq was considering the commencement of water injection programmes in the manner currently being undertaken.

11. These fields are now contributing an additional 160,000 barrels per day to the total production figure, compared with capacity at the end of phase IV. This apparent leap forward was triggered by the arrival of bactericide to treat the injected water. It should be noted that the injection wells were drilled before 1994 and all necessary in-field equipment (such as flow lines) was in place to start a programme of water injection and pressure maintenance. As the North Rumaila field was in critical need of a wet oil treatment plant to

complement the rest of the programme, in the absence of incoming spares, various other plants were cannibalized.

12. Starting in August 1998, the injection programmes in the South Rumaila and Zubair fields were cautiously implemented (on a limited number of wells). The response of the reservoirs (eventually including North Rumaila) provided an increment of 160,000 barrels per day by May 1999. Previous estimates of the Ministry of Oil with regard to the contribution of these water injection projects were based on reservoir engineering predictions made by foreign consultants, using computer models, which err demonstrably on the conservative side. Higher production rates than expected are now being achieved, and may briefly reach a plateau of perhaps an incremental 200,000 barrels per day in the next few months. After that they would be expected to begin declining, unless much-needed chemicals for drilling mud, perforating equipment and other completion technologies are delivered. Some of these items are still "on hold" by the Security Council Committee established by resolution 661 (1990), although they are essential for the operation of drilling new wells and/or well completion.

13. The extent and timing of the gain from the southern water injection programmes suggest that the "line water drive" technique is being applied, where injection wells are located to produce a linear flood front, sweeping through sections of the oil-containing reservoir rocks. This produces a short-term jump in the rate of production of oil, but a long-term deterioration in the total volume recovered. There are many technical issues involved, the effects of which can be summarized as a sudden fall-off in production at some point in the future. Depending on the rate of introduction of further projects using the same technique, it is conceivable that the projections of the Ministry of Oil will be met, possibly exceeded, for the next six months to one year, with a legacy of water-damaged reservoirs.

14. Good oil field practice dictates a structured approach, requiring reservoir stimulation, adequate pressure monitoring, pre-treatment of injected water and modern well completion techniques, etc., which will dictate the optimum well pattern for water flood. It is axiomatic that this good husbandry of Iraqi hydrocarbon assets will rely on the timely distribution of oil spare parts and equipment and related services, pursuant to resolutions 1175 (1998), 1210 (1998) and 1242 (1999).

15. Perhaps of equal significance is the ongoing success with the pilot development of the West Qurna field, with proven reserves of about 11 billion barrels. Under the current equipment constraints, a mere 40,000 barrels per day has been achieved, but despite the fairly heavy crude, i.e., 23 degrees by American Petroleum Institute (API) gravity standards, this field will play a pivotal role in the export projections for the next 18 months. The effect of bringing heavier crudes on stream in the south of Iraq can be seen in the continual decline in the API gravity of Basra light crude, from an initial level of over 34 degrees in phase I, to a level well below 32 degrees on recent shipments in phase VI. This decline will continue until it becomes possible to separate grades in the south, and to market separate grades as in the past (Basra medium and heavy). This will require significantly increased shore-side storage facilities, such as have been proposed for Fao under phase VI.

16. Ultimately, the Luhais field will also come on stream to boost capacity figures. However, oil field managers in Iraq recognize that they are causing irreparable damage to the older fields using current production practices. Annual rates of decline on these assets are difficult to define, because of the lack of pressure monitoring equipment, but estimates range from 2 per cent in the newer fields to perhaps 15 per cent for significant contributors like Kirkuk. A total of 54 wells have watered-out in the south since mid-1998 and are unlikely to be revived, unless they are found suitable for conversion to water injectors. This would mean that former crude oil producing wells would be used as water injection points for the purpose of maintaining pressure in the reservoir.

17. Future contributions from those projects, assisted by the arrival of oil spare parts and equipment, would help to offset the expected steep declines in other areas, but significant incremental steps in production (i.e., 500,000 barrels per day) would require major new reserves to come on stream. To this end, the Government of Iraq has initiated discussions with foreign companies to set up projects for developing new fields, as well as to discuss projects to further develop already producing fields, using modern technologies.

18. It is now possible to analyse the net impact of the recent history of the Iraqi oil industry, based on the following finite set of facts, some of which are corroborated by the group of experts and others are based on recent experience in Iraq:

(a) The net dry oil export volume for phase IV averaged 1,712,000 barrels per day;

(b) The net dry oil export volume for phase V averaged 2,009,000 barrels per day;

(c) During phase V, the minimum oil volume exported (averaged over one week) was 1,283,000 barrels per day, and the maximum, recently attained export figure was 2,603,000 barrels per day, which illustrates the typically erratic nature of production.

19. It is also relevant to ask why production rose by 297,000 barrels per day on average during a period when the initiative to procure spare parts and equipment was still in its infancy. There are four main explanations:

(a) Owing to the lack of spare parts, refinery throughput for internal consumption and exports to Jordan fell by an average of 110,000 barrels per day;

(b) As detailed above, the effect of the water injection projects has been an incremental 160,000 barrels per day above the production levels in the North and South Rumaila and Zubair fields, compared with the second half of 1998;

(c) The preliminary rate of production from the poorly resourced development of West Qurna is close to 40,000 barrels per day;

(d) The natural decline of producing reservoirs without pressure maintenance can thus be inferred to be minus 13,000 barrels per day in averaged effect.

20. The response of the fields in the south to the water injection programmes has been better than expected and is currently on an upward trend (which could stop suddenly because the injected water is not being filtered for fine solids). The recent high levels of export are probably the result of the concurrent effects of reduced refinery capacity coupled with rising incremental production from the North and South Rumaila and Zubair fields, and West Qurna in the south. Very little incremental change in northern production levels has occurred, declines being offset by improvements in oil separation owing to the arrival of, for example, dewatering chemicals, and small increases in contributions from such fields as Saddam.

21. The inferred average decline rate does not match expectations and, in the opinion of the group of experts, demonstrates that the incremental contribution from the southern water injection projects and new fields is not 200,000 barrels per day (160,000 barrels per day from North and South Rumaila and Zubair, plus 40,000 barrels per day from West Qurna), but potentially closer to 250,000 barrels per day (200,000 barrels per day from North and South Rumaila and Zubair, plus 50,000 barrels per day from West Qurna). Additionally, refinery throughput has been curtailed (by changes in local demand, non-arrival of key spare parts or later than expected arrival) and redirected to export.

22. Total Iraqi oil production and consumption figures are normally quoted by the producers as averages for the last month or quarter, and any inferences drawn from comparisons made with export figures based on the last few days or weeks should be viewed with caution.

E. Transportation capacity

23. In accordance with Security Council resolution 986 (1996), paragraph 6, the crude oil originating from Iraq is exported through the Iraq-Turkey pipeline to Ceyhan in Turkey, and the loading platform, Mina al-Bakr, located in the Persian Gulf.

24. The demonstrated capacity of the Iraq-Turkey pipeline is presently limited to a maximum of 1.05 million barrels per day. The actual throughput, however, fluctuates, influenced by power and communication failures, as well as the infrastructural limitations as described in the earlier reports of the group of experts. The average operation throughput during phase V was approximately 845,000 barrels per day. It is envisaged that after completion of the repairs to the infrastructure in the north, the capacity will increase to a figure approaching 1.6 million barrels per day. However, these repairs will not be completed before April 2000.

25. The export capacity through Mina al-Bakr is erratic and influenced by numerous deficiencies in the production and transportation infrastructure, power supply, intermediary storage capacity and communications in the southern part of Iraq. The average throughput during the last months of phase V was

approximately 1.3 million barrels per day. Although the sum of both locations exceeds Iraq's present export capacity, the group of experts strongly recommends that priority should be given to resolving the deficiencies mentioned, especially as it is the opinion of the group that operations at Mina al-Bakr are not carried out in an operationally safe manner. In December 1996, operations at Mina al-Bakr were resumed after completion of provisional repairs. It should be noted that the average loading rate was approximately 280,000 barrels per day. The present throughput is five times more than the throughput at the start of the oil-for-food programme; this increase has clearly accelerated the deterioration of this facility.

F. Monitoring of oil spare parts and equipment

26. All spare parts and equipment arriving in Iraq are monitored at storage-designated sites and for utilization for the purpose for which they were authorized. At present, three monitors carry out this task; arrangements have been made for an additional three. However, in view of the increased number of locations where the spare parts and equipment are stored, this team might need to be enlarged in the future.

27. In carrying out their tasks, the monitoring team has received full cooperation from the relevant authorities in Iraq.

G. Spare parts and equipment for phase VI

28. The list of oil spare parts and equipment for phase VI is again submitted in 13 sections, subdivided by operating companies, each with an allocation of funds determined by the Government of Iraq. Again there is no allocation for the Iraqi State Organization for the Marketing of Oil.

29. The Government of Iraq has included a number of "projects" in its oil spare parts and equipment submission to the phase VI distribution plan. Where these occur, the line item numbering system has been refined to identify such stand-alone projects. The completion of these projects, and subsequent impact on production, is dependent on the concurrent arrival of all of the line items identified.

30. The total value of the spare parts and equipment as listed exceeds the $300 million provided for under Security Council resolution 1242 (1999). The Government of Iraq has indicated that it will enter into contracts for spare parts and equipment up to the value of $300 million during the initial period of phase VI. During the latter part of phase VI, estimated to be late September or early October 1999, should the accrued value of crude oil sales be approaching the ceiling of $5.2 billion and, given a stable oil price from that time, should it be likely to exceed that target, the Government of Iraq has indicated that it would request additional spare parts and equipment.

H. Budget per operating company

North Oil Company - $65 million

31. The spare parts and equipment submission for the North Oil Company covers normal repairs and maintenance, as well as the following:

(a) The drilling and completion of 125 new wells;

(b) The work on and completion of 37 wells and connection of 53 pre-drilled dual purpose wells;

(c) The provision of three phase separators at Bai Hassan South, Bai Hassan North and Bai Hassan Dawood, to handle increased production of wet crude;

(d) Maintenance of the Sufaya field;

(e) Mechanical, electrical and instrumentation spare parts for process plants, degassing and compressor stations.

South Oil Company - $135 million

32. By far the largest individual operating company application, the South Oil Company has itemized an extensive range of spare parts and equipment, plus a number of specific projects, as follows:

(a) The completion of 25 wells (10 in Zubair, 5 in North Rumaila, 5 in South Rumaila and 5 in Missan);

(b) The completion and perforation of 100 wells in the DG6 region of the West Qurna oil field;

(c) The completion and perforation of 40 wells in the DG7 and DG8 regions of the West Qurna oil field;

(d) The completion and perforation of 80 wells in the North Rumaila field;

(e) The construction of eight storage tanks, each with a capacity of 58,000 cubic metres, for the rehabilitation of the Fao tank farm;

(f) The upgrading of the industrial water supply for North and South Rumaila, Zubair and Garmat Ali.

Iraqi Drilling Company - $7.5 million

33. The parts and equipment listed for the Iraqi Drilling Company cover the repair and maintenance of 12 rigs.

Oil Projects Company - $2.5 million

34. Much of the allocation for phase VI is a repetition of phase V, owing to reallocation of overall funds within that phase. The requirements address construction, engineering design work, maintenance, testing of new and repaired structures and non-destructive testing (x-ray).

Oil Exploration Company - $5 million

35. Again, this allocation addresses field rehabilitation and development programmes and, as pointed out in the previous report (S/1998/1223), was probably under-funded in phase V at $5 million.

North Refineries Company - $15 million

36. At the Baiji Refinery, under phase VI, the Government of Iraq plans to undertake five major projects (replacing the proposed hydro cracker unit slated under phase V, which has now been cancelled). These include the following:

(a) Repair of the non-operational blown asphalt bagging unit. In this process, hot air is blown into the asphalt, causing a chemical reaction. Either the oxygen bonds to the asphalt or hydrogen combines with the oxygen to make water, which evaporates. A harder, more rubbery asphalt results. An alternative to producing asphalt via high temperature flashing is to chemically change the consistency of the softer grades in a blower;

(b) Installation of one isomerization unit to increase gasoline quality and reduce the requirements to add tetra ethyl lead to motor gasoline. Tetra ethyl lead was added to gasoline to greatly simplify blending for octane improvement, as it increases the octane number of gasoline without affecting any other properties. It is a very toxic chemical, however, and in low concentration in the vapour form can induce violent illness or death. The reduction of lead in the industry has been essential for the reduction of environmental pollution;

(c) Repair of three hydro-desulphurization units;

(d) Repair of the hydrogen sulphide recovery unit. Hydrogen sulphide is exceedingly poisonous and, when burned in furnaces, sulphur dioxide is formed. Air quality regulations in most countries now limit sulphur dioxide emissions to the extent that most of the hydrogen sulphide must be kept out of fuel systems;

(e) Repair of one lubrication oil complex to produce 125,000 tons per annum of higher quality lubricating oil. Iraq is currently rationing lubricants, which has led to the illegal sales of substandard lubricating oil, spiked with uncontrolled additives, resulting in engine damage and increased pollution.

Midland Refineries Company - $10 million

37. The Midland Refineries Company operates the Daura Refinery near Baghdad. This section includes a contract to survey the efficiency of the 42 boilers operating in the refinery, and to carry out the relevant work when specified. The remaining items are for general repair and maintenance, particularly of crude oil desalting units to deal with the high salt content of incoming crude, and additional water treatment equipment.

South Refineries Company - $12.5 million

38. The South Refineries Company operates the Basra Refinery, for which two major projects are included under phase VI by the Government of Iraq. The first covers materials to redesignate the existing light gas oil desulphurization unit as an isomerization unit or, if not possible after engineering studies, to install an isomerization unit. This will allow the production of much higher quality lead-free gasoline. The second project is to replace an existing highly inefficient steam boiler unit with a new unit.

North Gas Company - $5 million

39. This submission is for equipment to improve the quality of fuel gas by reducing and/or removing the high levels of hydrogen sulphide. This requires five new amine pumps to rehabilitate the hydrogen sulphide recovery unit and spare parts for reparable units. Gas monitors for field use and spare parts for existing units, both safety-related, are also included.

South Gas Company - $7.5 million

40. In addition to spare parts and equipment for general maintenance in the southern area, materials for the repair and rehabilitation of the Khor-Zubair natural gas liquefied plant, located near the Zubair fields, the Khor-Zubair liquefied petroleum gas plant and the North Rumaila sour gas treatment plant are included. Repairs to the North Rumaila sour gas plant will allow extraction of hydrogen sulphide. The North Rumaila gas plant has received no repairs or maintenance for the past 11 years and is in deplorable condition.

Oil Products Distribution Company - $16 million

41. The Oil Products Distribution Company is responsible for the distribution of oil products by road within Iraq. Damage to the pipeline distribution network and the large geographical area covered requires considerable vehicular distribution capability. As in phase V, considerable emphasis is placed on repairs to and replacement of damaged and worn equipment and on fire-fighting capabilities.

Oil Pipelines Company - $5.5 million

42. The Oil Pipelines Company is responsible for all the pipeline transportation of oil products within Iraq. The total length of pipeline under the company's responsibility exceeds 7,000 kilometres and there are currently perceived bottlenecks in the measurement of oil within the system, severe

communication problems and a general lack of safety. The list of spare parts and equipment as submitted seeks to address these problem areas with a view to improving overall efficiency.

Gas Filling Company - $13.5 million

43. The submission for spare parts and equipment for the Gas Filling Company aims both to increase the efficiency of the gas filling plants under its responsibility and to enhance safety conditions in these plants.

44. The Government of Iraq also intends to import 500,000 new gas cylinders with valves but, concurrent with this, will recommence the local construction of gas cylinders to the maximum capacity of the local plant (500 new cylinders per day). Six new automatic filling lines for gas bottling are included, along with replacement spare parts for the existing, manually operated plants.

I. Conclusion

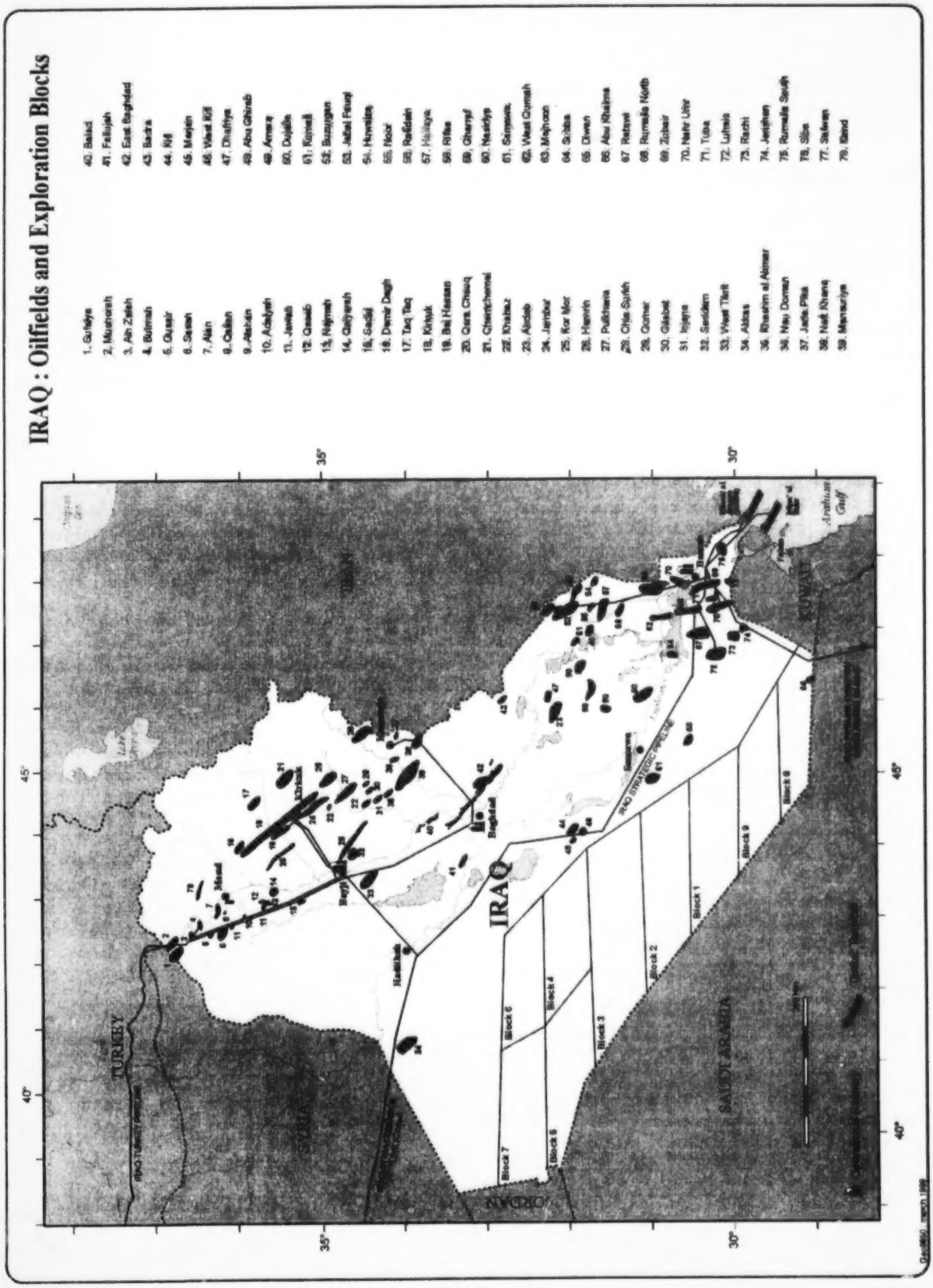
45. In previous reports, the group of experts highlighted the deleterious effect of over-producing crude oil from wells without sufficient well pressure maintenance. This practice continues, with apparently high levels of production decline from a significant number of producing wells.

46. Notwithstanding this, water injection in the south, assisted by treatment chemicals and the initiation of new production, has allowed for an increase in production at a level greater than the losses incurred, resulting in an overall increase. Refinery throughput reductions have released, albeit in the short term, additional crude oil for export.

47. The targets advised by the Government of Iraq, through to the end of the year 2000, are therefore considered to be attainable, subject to the continued arrival and distribution of spare parts, materials and equipment now arriving in the country.

48. The estimated value of the list of oil spare parts and equipment submitted by the Government of Iraq in the distribution plan for phase VI is $600 million, twice the amount approved by the Security Council in resolution 1242 (1999). This amount, however, is considered to be commensurate with the production levels achieved and predicted, given in particular the emphasis placed on major projects and investment in safety, control of pollution and environmental damage.

49. Any production figures, and resulting exports, higher than the Government of Iraq estimates up to the end of 1999 and early 2000, would stretch the current export capabilities of the ports of Ceyhan and Mina al-Bakr. Any technical problems encountered with the transport infrastructure and loading facilities at either port would inevitably negate the advantages of recent increases in production.


IRAQ : Oilfields and Exploration Blocks
1. Subiya
2. Mushorah
3. Ain Zalah
4. Bai Hassan
5. Qusair
6. Sarsar
7. Atshan
8. Qaiyarah
9. Akkaz
10. Adaiyah
11. Jawan
12. Qasab
13. Najmah
14. Qaiyarah
15. Sedeir
16. Demir Dagh
17. Taq Taq
18. Kirkuk
19. Bai Hassan
20. Gara Chauq
21. Chemchemal
22. Khabaz
23. Akaba
24. Jambur
25. Kor Mor
26. Hamrin
27. Pulkhana
28. Oil a Sufeh
29. Qomar
30. Gilabat
31. Injana
32. Sandalan
33. West Tikrit
34. Aldas
35. Rhashm al Ahmar
36. Nau Domah
37. Jade Pika
38. Nakt Khana
39. Mansuriya
40. Balad
41. Fallujah
42. East Baghdad
43. Badra
44. Kifl
45. Mejan
46. Wand Kifl
47. Dhaffiya
48. Abu Ghirab
49. Amara
50. Dujaila
51. Kumait
52. Buzurgan
53. Jebel Fauqi
54. Huwaiza
55. Noor
56. Refidain
57. Halfaya
58. Rifle
59. Gharyaf
60. Nasiriya
61. Sunaidi
62. West Qurnah
63. Majnoon
64. Subba
65. Diwan
66. Abu Khaima
67. Ratawi
68. Rumaila North
69. Zubair
70. Nahr Umr
71. Tuba
72. Luhais
73. Rachi
74. Jenaibeh
75. Rumaila South
76. Sibi
77. Sakwan
78. Band
TURKEY
IRAN
KUWAIT
SAUDI ARABIA
JORDAN
SYRIA
IRAQ
Baghdad
Basrah
Kirkuk
Mosul
Haditha
Rumaila
Zubair
Block 1
Block 2
Block 3
Block 4
Block 5
Block 6
Block 7
Block 8
Block 9
IRAQ STRATEGIC PIPELINE
Persian Gulf
Arabian Gulf
45°
40°
35°
30°